SEQUENCE LISTING

<110> ARES TRADING S.A.
<110> FAGAN, Richard Joseph
<110> DAVIDS, Andrew Robert
<110> PHELPS, Christopher Benjamin
<110> POWER, Christine
<110> BOSCHERT, Ursula
<110> CHVATCHKO, Yolande

<120> CYTOKINE AGONIST MOLECULES

<130> P035815WO

<140> PCT/GB2004/004772
<141> 2004-11-12

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<151> 2003-11-12

<160> 31

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<212> PRT
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1 5 10 15

Leu Ala Pro Phe Val Tyr Leu Leu Leu Ile Gln Thr Asp
20 25

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ggcagctgaa gcgggacaag ccagtgaccg tggtgcagtc cattggcaca gaggtcatcg 180
gcaccctgcg gcctgactat cgagaccgta tccgactctt tgaaaatggc tccctgcttc 240

tcagcgacct gcagctggcc gatgagggca cctatgaggt cgagatctcc atcaccgacg 300
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<210> 4
<211> 114
<212> PRT
<213> Homo sapiens

<400> 4
Pro Leu Glu Gly Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly
1 5 10 15

Thr Val Gly Lys Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser
20 25 30

Ser Asp Arg Pro Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val
35 40 45

Thr Val Val Gln Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro
50 55 60

Asp Tyr Arg Asp Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu
65 70 75 80

Ser Asp Leu Gln Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser
85 90 95

Ile Thr Asp Asp Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val
100 105 110

Asp Val

<210> 5
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<212> DNA
<213> Homo sapiens

<400> 5
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atggcaagcc cctcctcaat gactcgagaa tgctcctgtc ccccgaccaa aaggtgctca 180
ccatcacccg cgtgctcatg gaggatgacg acctgtacag ctgcatggtg gagaacccca 240
tcagccaggg ccgcagcctg cctgtcaaga tcaccgtata ca 282

<210> 6
<211> 94
<212> PRT
<213> Homo sapiens

<400> 6
Pro Ile Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu
1 5 10 15

Leu Ser Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys

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            20                  25                  30

Pro Ser Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser
        35                  40                  45

Arg Met Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val
    50                  55                  60

Leu Met Glu Asp Asp Asp Leu Tyr Ser Cys Met Val Glu Asn Pro Ile
65                  70                  75                  80

Ser Gln Gly Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg
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<212> DNA
<213> Homo sapiens

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tgacagtctg tgcctgctgg aaaccctcca aaag 94

<210> 8
<211> 31
<212> PRT
<213> Homo sapiens

<400> 8

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Arg Ser Ser Leu Tyr Ile Ile Leu Ser Thr Gly Gly Ile Phe Leu Leu
1               5                   10                  15

Val Thr Leu Val Thr Val Cys Ala Cys Trp Lys Pro Ser Lys Arg
            20                  25                  30
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<210> 9
<211> 74
<212> DNA
<213> Homo sapiens

<400> 9
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cctgaaacca gaag 74

<210> 10
<211> 25
<212> PRT
<213> Homo sapiens

<400> 10

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Lys Gln Lys Lys Leu Glu Lys Gln Asn Ser Leu Glu Tyr Met Asp Gln
1               5                   10                  15

Asn Asp Asp Arg Leu Lys Pro Glu Ala
            20                  25
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<210> 11
<211> 71
<212> DNA
<213> Homo sapiens

<400> 11
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tgaaggacaa g 71

<210> 12
<211> 23
<212> PRT
<213> Homo sapiens

<400> 12
Asp Thr Leu Pro Arg Ser Gly Glu Gln Glu Arg Lys Asn Pro Met Ala
1 5 10 15

Leu Tyr Ile Leu Lys Asp Lys
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<210> 13
<211> 303
<212> DNA
<213> Homo sapiens

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tctgcccgcc gctacccgcg ctccccagcg cgctccccag ccaccggccg gacacactcg 180
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tga 303

<210> 14
<211> 100
<212> PRT
<213> Homo sapiens

<400> 14
Asp Ser Pro Glu Thr Glu Glu Asn Pro Ala Pro Glu Pro Arg Ser Ala
1 5 10 15

Thr Glu Pro Gly Pro Pro Gly Tyr Ser Val Ser Pro Ala Val Pro Gly
20 25 30

Arg Ser Pro Gly Leu Pro Ile Arg Ser Ala Arg Arg Tyr Pro Arg Ser
35 40 45

Pro Ala Arg Ser Pro Ala Thr Gly Arg Thr His Ser Ser Pro Pro Arg
50 55 60

Ala Pro Ser Ser Pro Gly Arg Ser Arg Ser Ala Ser Arg Thr Leu Arg
65 70 75 80

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Thr Ala Gly Val His Ile Ile Arg Glu Gln Asp Glu Ala Gly Pro Val
                85                  90                  95

Glu Ile Ser Ala
            100
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<210> 15
<211> 1251
<212> DNA
<213> Homo sapiens

<400> 15

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cgcctgatcc atggcaccgt ggggaagtcg gctctgcttt ctgtgcagta cagcagtacc   180
agcagcgaca ggcctgtagt gaagtggcag ctgaagcggg acaagccagt gaccgtggtg   240
cagtccattg gcacagaggt catcggcacc ctgcggcctg actatcgaga ccgtatccga   300
ctctttgaaa atggctccct gcttctcagc gacctgcagc tggccgatga gggcacctat   360
gaggtcgaga tctccatcac cgacgacacc ttcactgggg agaagaccat caaccttact   420
gtagatgtgc ccatttcgag gccacaggtg ttggtggctt caaccactgt gctggagctc   480
agcgaggcct tcaccttgaa ctgctcacat gagaatggca ccaagcccag ctacacctgg   540
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gtgctcacca tcacccgcgt gctcatggag gatgacgacc tgtacagctg catggtggag   660
aaccccatca gccagggccg cagcctgcct gtcaagatca ccgtatacag aagaagctcc   720
ctttacatca tcttgtctac aggaggcatc ttcctccttg tgaccttggt gacagtctgt   780
gcctgctgga aaccctccaa aaggaaacag aagaagctag aaaagcaaaa ctccctggaa   840
tacatggatc agaatgatga ccgcctgaaa ccagaagcag acaccctccc tcgaagtggt   900
gagcaggaac ggaagaaccc catggcactc tatatcctga aggacaagga ctccccggag   960
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gccccgagct cgcccggccg ctcgcgcagc gcctcgcgca cactgcggac tgcgggcgtg   1200
cacataatcc gcgagcaaga cgaggccggc ccggtggaga tcagcgcctg a            1251
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<210> 16
<211> 416
<212> PRT
<213> Homo sapiens

<400> 16

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Met Lys Arg Glu Arg Gly Ala Leu Ser Arg Ala Ser Arg Ala Leu Arg
1               5                  10                  15

Leu Ala Pro Phe Val Tyr Leu Leu Leu Ile Gln Thr Asp Pro Leu Glu
            20                  25                  30

Gly Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly
        35                  40                  45

Lys Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Arg
    50                  55                  60

Pro Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val
65                  70                  75                  80
```

```
Gln Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg
                85                  90                  95

Asp Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu Ser Asp Leu
            100                 105                 110

Gln Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp
        115                 120                 125

Asp Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro
    130                 135                 140

Ile Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu Leu
145                 150                 155                 160

Ser Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys Pro
                165                 170                 175

Ser Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser Arg
            180                 185                 190

Met Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val Leu
        195                 200                 205

Met Glu Asp Asp Asp Leu Tyr Ser Cys Met Val Glu Asn Pro Ile Ser
    210                 215                 220

Gln Gly Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg Arg Ser Ser
225                 230                 235                 240

Leu Tyr Ile Ile Leu Ser Thr Gly Gly Ile Phe Leu Leu Val Thr Leu
                245                 250                 255

Val Thr Val Cys Ala Cys Trp Lys Pro Ser Lys Arg Lys Gln Lys Lys
            260                 265                 270

Leu Glu Lys Gln Asn Ser Leu Glu Tyr Met Asp Gln Asn Asp Asp Arg
        275                 280                 285

Leu Lys Pro Glu Ala Asp Thr Leu Pro Arg Ser Gly Glu Gln Glu Arg
    290                 295                 300

Lys Asn Pro Met Ala Leu Tyr Ile Leu Lys Asp Lys Asp Ser Pro Glu
305                 310                 315                 320

Thr Glu Glu Asn Pro Ala Pro Glu Pro Arg Ser Ala Thr Glu Pro Gly
                325                 330                 335

Pro Pro Gly Tyr Ser Val Ser Pro Ala Val Pro Gly Arg Ser Pro Gly
            340                 345                 350

Leu Pro Ile Arg Ser Ala Arg Arg Tyr Pro Arg Ser Pro Ala Arg Ser
        355                 360                 365
```

```
Pro Ala Thr Gly Arg Thr His Ser Ser Pro Pro Arg Ala Pro Ser Ser
    370                 375                 380

Pro Gly Arg Ser Arg Ser Ala Ser Arg Thr Leu Arg Thr Ala Gly Val
385                 390                 395                 400

His Ile Ile Arg Glu Gln Asp Glu Ala Gly Pro Val Glu Ile Ser Ala
                405                 410                 415


<210>   17
<211>   1257
<212>   DNA
<213>   Mus musculus

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cgtctgatcc acggcacagt ggggaagtcg gccctgcttt ccgtgcagta cagtagcacc   180
agcagcgaca agcccgtggt gaagtggcag ctgaagcgtg acaagccagt gaccgtggtg   240
cagtctatag gcacagaggt cattggcact ctgcggcctg actatcgaga ccgtatccgg   300
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gaagtggaga tttccatcac tgacgacacc ttcaccgggg agaagaccat caacctcacc   420
gtggatgtgc ccatttcaag gccgcaggta ttagtggctt caaccactgt gctggagctc   480
agtgaggcct tcaccctcaa ctgctcccat gagaatggca ccaagcctag ctacacgtgg   540
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gtgctcacca tcacccgagt actcatggaa gatgacgacc tgtacagctg tgtggtggag   660
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agtggagaac aggagcggaa gaacccaatg gcactctata tcctgaagga taaggattcc   960
tcagagccag atgaaaaccc tgctacagag ccacggagca ccacagaacc cggtcccctt   1020
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cgccgctacc cgcgctcccc agcacgttcc cctgccactg gccggacgca cacgtcgcca   1140
ccgcgggccc cgagctcgcc aggccgctcg cgcagctctt cgcgctcact gcggactgca   1200
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<210>   18
<211>   418
<212>   PRT
<213>   Mus musculus

<400>   18
Met Lys Arg Glu Arg Gly Ala Leu Ser Arg Ala Ser Arg Ala Leu Arg
1               5                   10                  15

Leu Ser Pro Phe Val Tyr Leu Leu Leu Ile Gln Pro Val Pro Leu Glu
            20                  25                  30

Gly Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly
        35                  40                  45

Lys Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Lys
    50                  55                  60
```

```
Pro Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val
65                  70                  75                  80

Gln Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg
                85                  90                  95

Asp Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu Ser Asp Leu
            100                 105                 110

Gln Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp
        115                 120                 125

Asp Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro
    130                 135                 140

Ile Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu Leu
145                 150                 155                 160

Ser Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys Pro
                165                 170                 175

Ser Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser Arg
            180                 185                 190

Met Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val Leu
        195                 200                 205

Met Glu Asp Asp Asp Leu Tyr Ser Cys Val Val Glu Asn Pro Ile Ser
    210                 215                 220

Gln Val Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg Arg Ser Ser
225                 230                 235                 240

Leu Tyr Ile Ile Leu Ser Thr Gly Gly Ile Phe Leu Leu Val Thr Leu
                245                 250                 255

Val Thr Val Cys Ala Cys Trp Lys Pro Ser Lys Lys Ser Arg Lys Lys
            260                 265                 270

Arg Lys Leu Glu Lys Gln Asn Ser Leu Glu Tyr Met Asp Gln Asn Asp
        275                 280                 285

Asp Arg Leu Lys Ser Glu Ala Asp Thr Leu Pro Arg Ser Gly Glu Gln
    290                 295                 300

Glu Arg Lys Asn Pro Met Ala Leu Tyr Ile Leu Lys Asp Lys Asp Ser
305                 310                 315                 320

Ser Glu Pro Asp Glu Asn Pro Ala Thr Glu Pro Arg Ser Thr Thr Glu
                325                 330                 335

Pro Gly Pro Pro Gly Tyr Ser Val Ser Pro Pro Val Pro Gly Arg Ser
            340                 345                 350
```

```
Pro Gly Leu Pro Ile Arg Ser Ala Arg Arg Tyr Pro Arg Ser Pro Ala
        355                 360                 365

Arg Ser Pro Ala Thr Gly Arg Thr His Thr Ser Pro Pro Arg Ala Pro
    370                 375                 380

Ser Ser Pro Gly Arg Ser Arg Ser Ser Ser Arg Ser Leu Arg Thr Ala
385                 390                 395                 400

Gly Val Gln Arg Ile Arg Glu Gln Asp Glu Ser Gly Gln Val Glu Ile
                405                 410                 415

Ser Ala
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<210> 19
<211> 720
<212> DNA
<213> Homo sapiens

<400> 19

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cgcctgatcc atggcaccgt ggggaagtcg gctctgcttt ctgtgcagta cagcagtacc   180
agcagcgaca ggcctgtagt gaagtggcag ctgaagcggg acaagccagt gaccgtggtg   240
cagtccattg gcacagaggt catcggcacc ctgcggcctg actatcgaga ccgtatccga   300
ctctttgaaa atggctccct gcttctcagc gacctgcagc tggccgatga gggcacctat   360
gaggtcgaga tctccatcac cgacgacacc ttcactgggg agaagaccat caaccttact   420
gtagatgtgc ccatttcgag gccacaggtg ttggtggctt caaccactgt gctggagctc   480
agcgaggcct tcaccttgaa ctgctcacat gagaatggca ccaagcccag ctacacctgg   540
ctgaaggatg gcaagccccc cctcaatgac tcgagaatgc tcctgtcccc cgaccaaaag   600
gtgctcacca tcacccgcgt gctcatggag gatgacgacc tgtacagctg catggtggag   660
aaccccatca gccagggccg cagcctgcct gtcaagatca ccgtatacag aagaagctcc   720
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<210> 20
<211> 240
<212> PRT
<213> Homo sapiens

<400> 20

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Met Lys Arg Glu Arg Gly Ala Leu Ser Arg Ala Ser Arg Ala Leu Arg
1               5                   10                  15

Leu Ala Pro Phe Val Tyr Leu Leu Leu Ile Gln Thr Asp Pro Leu Glu
            20                  25                  30

Gly Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly
        35                  40                  45

Lys Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Arg
    50                  55                  60

Pro Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val
65                  70                  75                  80
```

```
Gln Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg
                85                  90                  95

Asp Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu Ser Asp Leu
            100                 105                 110

Gln Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp
        115                 120                 125

Asp Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro
    130                 135                 140

Ile Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu Leu
145                 150                 155                 160

Ser Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys Pro
                165                 170                 175

Ser Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser Arg
            180                 185                 190

Met Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val Leu
        195                 200                 205

Met Glu Asp Asp Asp Leu Tyr Ser Cys Met Val Glu Asn Pro Ile Ser
    210                 215                 220

Gln Gly Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg Arg Ser Ser
225                 230                 235                 240
```

<210> 21
<211> 621
<212> DNA
<213> Homo sapiens

<400> 21

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gacaagccag tgaccgtggt gcagtccatt ggcacagagg tcatcggcac cctgcggcct   180
gactatcgag accgtatccg actctttgaa aatggctccc tgcttctcag cgacctgcag   240
ctggccgatg agggcaccta tgaggtcgag atctccatca ccgacgacac cttcactggg   300
gagaagacca tcaaccttac tgtagatgtg cccatttcga ggccacaggt gttggtggct   360
tcaaccactg tgctggagct cagcgaggcc ttcaccttga actgctcaca tgagaatggc   420
accaagccca gctacacctg gctgaaggat ggcaagcccc tcctcaatga ctcgagaatg   480
ctcctgtccc ccgaccaaaa ggtgctcacc atcacccgcg tgctcatgga ggatgacgac   540
ctgtacagct gcatggtgga gaaccccatc agccagggcc gcagcctgcc tgtcaagatc   600
accgtataca gaagaagctc c                                             621
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<210> 22
<211> 207
<212> PRT
<213> Homo sapiens

<400> 22

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Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly Lys
1               5                  10                  15

Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Arg Pro
            20                  25                  30

Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val Gln
        35                  40                  45

Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg Asp
    50                  55                  60

Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu Ser Asp Leu Gln
65                  70                  75                  80

Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp Asp
                85                  90                  95

Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro Ile
            100                 105                 110

Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu Leu Ser
        115                 120                 125

Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys Pro Ser
    130                 135                 140

Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser Arg Met
145                 150                 155                 160

Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val Leu Met
                165                 170                 175

Glu Asp Asp Asp Leu Tyr Ser Cys Met Val Glu Asn Pro Ile Ser Gln
            180                 185                 190

Gly Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg Arg Ser Ser
        195                 200                 205
```

<210> 23
<211> 328
<212> DNA
<213> Homo sapiens

<400> 23

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gacaagccag tgaccgtggt gcagtccatt ggcacagagg tcatcggcac cctgcggcct   180
gactatcgag accgtatccg actctttgaa aatggctccc tgcttctcag cgacctgcag   240
ctggccgatg agggcaccta tgaggtcgag atctccatca ccgacgacac cttcactggg   300
gagaagacca tcaaccttac tgtagatg                                      328
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<210> 24
<211> 110
<212> PRT

<213> Homo sapiens

<400> 24
Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly Lys
1 5 10 15

Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Arg Pro
20 25 30

Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val Gln
35 40 45

Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg Asp
50 55 60

Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu Ser Asp Leu Gln
65 70 75 80

Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp Asp
85 90 95

Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val
100 105 110

<210> 25
<211> 1152
<212> DNA
<213> Homo sapiens

<400> 25
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tctgtgcagt acagcagtac cagcagcgac aggcctgtag tgaagtggca gctgaagcgg 120
gacaagccag tgaccgtggt gcagtccatt ggcacagagg tcatcggcac cctgcggcct 180
gactatcgag accgtatccg actctttgaa aatggctccc tgcttctcag cgacctgcag 240
ctggccgatg agggcaccta tgaggtcgag atctccatca ccgacgacac cttcactggg 300
gagaagacca tcaaccttac tgtagatgtg cccatttcga ggccacaggt gttggtggct 360
tcaaccactg tgctggagct cagcgaggcc ttcaccttga actgctcaca tgagaatggc 420
accaagccca gctacacctg gctgaaggat ggcaagcccc tcctcaatga ctcgagaatg 480
ctcctgtccc ccgaccaaaa ggtgctcacc atcacccgcg tgctcatgga ggatgacgac 540
ctgtacagct gcatggtgga gaaccccatc agccagggcc gcagcctgcc tgtcaagatc 600
accgtataca gaagaagctc cctttacatc atcttgtcta caggaggcat cttcctcctt 660
gtgaccttgg tgacagtctg tgcctgctgg aaaccctcca aaaggaaaca gaagaagcta 720
gaaaagcaaa actccctgga atacatggat cagaatgatg accgcctgaa accagaagca 780
gacaccctcc ctcgaagtgg tgagcaggaa cggaagaacc ccatggcact ctatatcctg 840
aaggacaagg actccccgga gaccgaggag aacccggccc cggagcctcg aagcgcgacg 900
gagcccggcc cgcccggcta ctccgtgtct cccgccgtgc ccggccgctc gccggggctg 960
cccatccgct ctgcccgccg ctacccgcgc tccccagcgc gctccccagc caccggccgg 1020
acacactcgt cgccgcccag ggccccgagc tcgcccggcc gctcgcgcag cgcctcgcgc 1080
acactgcgga ctgcgggcgt gcacataatc cgcgagcaag acgaggccgg cccggtggag 1140
atcagcgcct ga 1152

<210> 26
<211> 383
<212> PRT
<213> Homo sapiens

<400> 26

```
Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly Lys
1               5                  10                  15

Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Arg Pro
            20                  25                  30

Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val Gln
        35                  40                  45

Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg Asp
    50                  55                  60

Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu Ser Asp Leu Gln
65                  70                  75                  80

Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp Asp
                85                  90                  95

Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro Ile
            100                 105                 110

Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu Leu Ser
        115                 120                 125

Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys Pro Ser
    130                 135                 140

Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser Arg Met
145                 150                 155                 160

Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val Leu Met
                165                 170                 175

Glu Asp Asp Asp Leu Tyr Ser Cys Met Val Glu Asn Pro Ile Ser Gln
            180                 185                 190

Gly Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg Arg Ser Ser Leu
        195                 200                 205

Tyr Ile Ile Leu Ser Thr Gly Gly Ile Phe Leu Leu Val Thr Leu Val
    210                 215                 220

Thr Val Cys Ala Cys Trp Lys Pro Ser Lys Arg Lys Gln Lys Lys Leu
225                 230                 235                 240

Glu Lys Gln Asn Ser Leu Glu Tyr Met Asp Gln Asn Asp Asp Arg Leu
                245                 250                 255

Lys Pro Glu Ala Asp Thr Leu Pro Arg Ser Gly Glu Gln Glu Arg Lys
            260                 265                 270

Asn Pro Met Ala Leu Tyr Ile Leu Lys Asp Lys Asp Ser Pro Glu Thr
        275                 280                 285
```

```
Glu Glu Asn Pro Ala Pro Glu Pro Arg Ser Ala Thr Glu Pro Gly Pro
    290                 295                 300

Pro Gly Tyr Ser Val Ser Pro Ala Val Pro Gly Arg Ser Pro Gly Leu
305                 310                 315                 320

Pro Ile Arg Ser Ala Arg Arg Tyr Pro Arg Ser Pro Ala Arg Ser Pro
                325                 330                 335

Ala Thr Gly Arg Thr His Ser Ser Pro Pro Arg Ala Pro Ser Ser Pro
            340                 345                 350

Gly Arg Ser Arg Ser Ala Ser Arg Thr Leu Arg Thr Ala Gly Val His
        355                 360                 365

Ile Ile Arg Glu Gln Asp Glu Ala Gly Pro Val Glu Ile Ser Ala
    370                 375                 380
```

<210> 27
<211> 256
<212> PRT
<213> Homo sapiens

<400> 27

```
Met Lys Arg Glu Arg Gly Ala Leu Ser Arg Ala Ser Arg Ala Leu Arg
1               5                   10                  15

Leu Ala Pro Phe Val Tyr Leu Leu Leu Ile Gln Thr Asp Pro Leu Glu
            20                  25                  30

Gly Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly
        35                  40                  45

Lys Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Arg
    50                  55                  60

Pro Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val
65                  70                  75                  80

Gln Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg
                85                  90                  95

Asp Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu Ser Asp Leu
            100                 105                 110

Gln Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp
        115                 120                 125

Asp Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro
    130                 135                 140

Ile Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu Leu
145                 150                 155                 160
```

```
Ser Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys Pro
                165                 170                 175

Ser Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser Arg
            180                 185                 190

Met Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val Leu
        195                 200                 205

Met Glu Asp Asp Asp Leu Asp Ser Cys Val Val Glu Asn Pro Ile Asn
    210                 215                 220

Gln Gly Arg Thr Leu Pro Cys Lys Ile Thr Val Tyr Lys Lys Ser Ser
225                 230                 235                 240

Leu Ser Ser Ile Trp Leu Gln Glu Ala Phe Ser Ser Leu Gly Pro Trp
                245                 250                 255
```

<210> 28
<211> 256
<212> PRT
<213> Homo sapiens

<400> 28

```
Met Lys Arg Glu Arg Gly Ala Leu Ser Arg Ala Ser Arg Ala Leu Arg
1               5                   10                  15

Leu Ala Pro Phe Val Tyr Leu Leu Leu Ile Gln Thr Asp Pro Leu Glu
            20                  25                  30

Gly Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly
        35                  40                  45

Lys Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Arg
    50                  55                  60

Pro Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val
65                  70                  75                  80

Gln Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg
                85                  90                  95

Asp Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu Ser Asp Leu
            100                 105                 110

Gln Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp
        115                 120                 125

Asp Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro
    130                 135                 140

Ile Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu Leu
145                 150                 155                 160
```

```
Ser Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys Pro
                165                 170                 175

Ser Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser Arg
            180                 185                 190

Met Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val Leu
        195                 200                 205

Met Glu Asp Asp Asp Leu Asp Ser Cys Val Val Glu Asn Pro Ile Asn
    210                 215                 220

Gln Gly Arg Thr Leu Pro Cys Lys Ile Thr Val Tyr Lys Lys Ser Ser
225                 230                 235                 240

Phe Tyr Ile Ile Cys Leu Lys Glu Ala Ser Ser Ser Phe Gly Pro Trp
                245                 250                 255
```

<210> 29
<211> 213
<212> PRT
<213> Homo sapiens

<400> 29

```
Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly Lys
1               5                   10                  15

Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Arg Pro
            20                  25                  30

Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val Gln
        35                  40                  45

Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg Asp
    50                  55                  60

Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu Ser Asp Leu Gln
65                  70                  75                  80

Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp Asp
                85                  90                  95

Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro Ile
            100                 105                 110

Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu Leu Ser
        115                 120                 125

Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys Pro Ser
    130                 135                 140

Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser Arg Met
145                 150                 155                 160
```

```
Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val Leu Met
                165                 170                 175

Glu Asp Asp Asp Leu Tyr Ser Cys Met Val Glu Asn Pro Ile Ser Gln
            180                 185                 190

Gly Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg Arg Ser Ser His
        195                 200                 205

His His His His His
    210
```

<210> 30
<211> 439
<212> PRT
<213> Homo sapiens

<400> 30

```
Val Asn Ile Thr Ser Pro Val Arg Leu Ile His Gly Thr Val Gly Lys
1               5                   10                  15

Ser Ala Leu Leu Ser Val Gln Tyr Ser Ser Thr Ser Ser Asp Arg Pro
            20                  25                  30

Val Val Lys Trp Gln Leu Lys Arg Asp Lys Pro Val Thr Val Val Gln
        35                  40                  45

Ser Ile Gly Thr Glu Val Ile Gly Thr Leu Arg Pro Asp Tyr Arg Asp
    50                  55                  60

Arg Ile Arg Leu Phe Glu Asn Gly Ser Leu Leu Leu Ser Asp Leu Gln
65                  70                  75                  80

Leu Ala Asp Glu Gly Thr Tyr Glu Val Glu Ile Ser Ile Thr Asp Asp
                85                  90                  95

Thr Phe Thr Gly Glu Lys Thr Ile Asn Leu Thr Val Asp Val Pro Ile
            100                 105                 110

Ser Arg Pro Gln Val Leu Val Ala Ser Thr Thr Val Leu Glu Leu Ser
        115                 120                 125

Glu Ala Phe Thr Leu Asn Cys Ser His Glu Asn Gly Thr Lys Pro Ser
    130                 135                 140

Tyr Thr Trp Leu Lys Asp Gly Lys Pro Leu Leu Asn Asp Ser Arg Met
145                 150                 155                 160

Leu Leu Ser Pro Asp Gln Lys Val Leu Thr Ile Thr Arg Val Leu Met
                165                 170                 175

Glu Asp Asp Asp Leu Tyr Ser Cys Met Val Glu Asn Pro Ile Ser Gln
            180                 185                 190

Gly Arg Ser Leu Pro Val Lys Ile Thr Val Tyr Arg Arg Ser Ser Glu
```

195 200 205

Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
210 215 220

Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
225 230 235 240

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
245 250 255

Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
260 265 270

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
275 280 285

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
290 295 300

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
305 310 315 320

Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
325 330 335

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys
340 345 350

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
355 360 365

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
370 375 380

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
385 390 395 400

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
405 410 415

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
420 425 430

Leu Ser Leu Ser Pro Gly Lys
435

<210> 31
<211> 186
<212> PRT
<213> Homo sapiens

<400> 31
Val Arg Leu Ile His Gly Thr Val Gly Lys Ser Ala Leu Leu Ser Val
1 5 10 15

```
Gln Tyr Ser Ser Thr Ser Ser Asp Arg Pro Val Val Lys Trp Gln Leu
            20                  25                  30

Lys Arg Asp Lys Pro Val Thr Val Val Gln Ser Ile Gly Thr Glu Val
        35                  40                  45

Ile Gly Thr Leu Arg Pro Asp Tyr Arg Asp Arg Ile Arg Leu Phe Glu
    50                  55                  60

Asn Gly Ser Leu Leu Leu Ser Asp Leu Gln Leu Ala Asp Glu Gly Thr
65                  70                  75                  80

Tyr Glu Val Glu Ile Ser Ile Thr Asp Asp Thr Phe Thr Gly Glu Lys
                85                  90                  95

Thr Ile Asn Leu Thr Val Asp Val Pro Ile Ser Arg Pro Gln Val Leu
            100                 105                 110

Val Ala Ser Thr Thr Val Leu Glu Leu Ser Glu Ala Phe Thr Leu Asn
        115                 120                 125

Cys Ser His Glu Asn Gly Thr Lys Pro Ser Tyr Thr Trp Leu Lys Asp
    130                 135                 140

Gly Lys Pro Leu Leu Asn Asp Ser Arg Met Leu Leu Ser Pro Asp Gln
145                 150                 155                 160

Lys Val Leu Thr Ile Thr Arg Val Leu Met Glu Asp Asp Asp Leu Tyr
                165                 170                 175

Ser Cys Met Val Glu Asn Pro Ile Ser Gln
            180                 185
```